

Abstract

Resonator operating with bulk acoustic waves and circuit with the resonator

5 The invention relates to a resonator operating with bulk acoustic waves (BAW resonator, BAW = Bulk Acoustic Wave) and band-pass filters constructed of such resonators. To increase the edge steepness of the transmission band of a BAW band-pass filter, the invention proposes reducing the effective coupling of a BAW resonator by using the connection in parallel of a BAW resonator and a capacitor instead of only one
10 resonator. In addition, to increase the edge steepness of the transmission band, the use of a connection of coupled BAW resonators in the serial branch of a filter circuit with another resonator or resonator stack in the parallel branch of the filter circuit is proposed, the additional resonator or resonator stack being connected to the center electrode of the resonator stack specified initially.

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Figure 5